



P.B.5818 - Patentaan 2  
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SLE-1  
04.12.2002

Europäisches  
Patentamt

Zweigstelle  
in Den Haag  
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First	06.02.03	SB	JH
Agency	PC	PL	Classification
-6. Jan. 2003 Ju.			

Datum/Date  
29.11.02

Zeichen/Ref./Réf. 02/063 EP	Anmeldung Nr./Application No./Demande/n°/Patent Nr./Patent No./Brevet n°. 02405605.3-2208-
Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire ABB RESEARCH LTD.	

## COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☒ abstract

☒ title

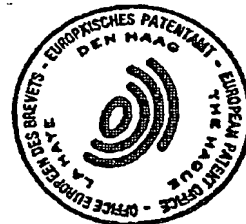
☐ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

3

## REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
D,A	DE 100 14 197 A (ABB RESEARCH LTD) 27 September 2001 (2001-09-27) * column 2, line 27 - column 5, line 54; figures *	1-6	H01L39/16
A	PATENT ABSTRACTS OF JAPAN vol. 017, no. 307 (E-1379), 11 June 1993 (1993-06-11) & JP 05 022855 A (MITSUBISHI ELECTRIC CORP), 29 January 1993 (1993-01-29) * abstract * -& JP 05 022855 A (MITSUBISHI ELECTRIC CORP) 29 January 1993 (1993-01-29) * paragraph '0008! - paragraph '0016!; figures 1-4 *	1-4	
A	DE 27 12 990 A (INSTITUT PRÜFFELD FÜR ELEKTRISCHE HOCHLEISTUNGSTECHNIK BERLIN) 29 December 1977 (1977-12-29) * page 4, paragraph 3 - page 8, paragraph 2; figure 3 *	1-4	
A	WO 02 47180 A (SIEMENS AG; FISCHER STEFAN ET AL) 13 June 2002 (2002-06-13) * page 1, line 12 - page 3, line 20 * * page 8, line 15 - page 11, line 14 * * figures 3,6 *	1,6	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H01L H02H
Place of search		Date of completion of the search	Examiner
THE HAGUE		22 November 2002	Köpf, C
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 40 5605

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-11-2002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 10014197 ✓ A	27-09-2001	DE 10014197 A1	27-09-2001
JP 05022855 ✓ A	29-01-1993	NONE	
DE 2712990 ✓ A	29-12-1977	DD 126232 A1	06-07-1977
		DE 2712990 A1	29-12-1977
WO 0247180 ✓ A	13-06-2002	DE 10061340 A1	06-06-2002
		WO 0247180 A2	13-06-2002

**Translation of the explanations ("Erklärungen") of enclosure 2 ("Anlage 2") of the search report of the German Patent Office ("Deutsches Patentamt") explaining the symbol letters stating the relevancy of the cited references:**

## **Explanations**

### **Column 1: Category**

It means:

- X:** References which alone question either novelty or inventiveness
- Y:** References which question inventiveness together with other references
- A:** State of the art in general, technological background
- O:** Non-written disclosure, e.g. lecture being published in a reference dated later than the filing date or priority date, and having been held before the filing or priority date
- P:** References published prior to the filing date but later than the priority date claimed
- T:** References published after the filing date or priority date, and not being in conflict with the application, which concern the theory of the invention and which are cited to better understand the invention or to prove that the principle or theory underlying the invention could be wrong
- E:** Prior applications according to § 3 par. 2 PatG (German Patent Statute) (for searches according to § 43 PatG); prior patent applications or prior utility models according to § 15 GbmG (German Utility Model Statute) (for searches according to § 7 GbmG)
- D:** References already cited in the patent application
- L:** References cited for special reasons, e.g. to establish the publication date of another citation or if there exist doubts on priority claim(s)

In searches according to § 7 GbmG only categories "A" and "E" are indicated.

### **Column 2: Cited references / illustrations**

**Veröff:** Date of publication of a reference published in the priority period

**nr:** Not searched, since belonging to well known state of the art, or not searchable

**=:** References which are member of the same patent family or which are referenced by lectures or abstracts

**"-":** Nothing ascertained

### **Column 3: Concerned claims**

In this column, the claims allocated to the relevant passages of column 2 are indicated.